

## **Historic, archived document**

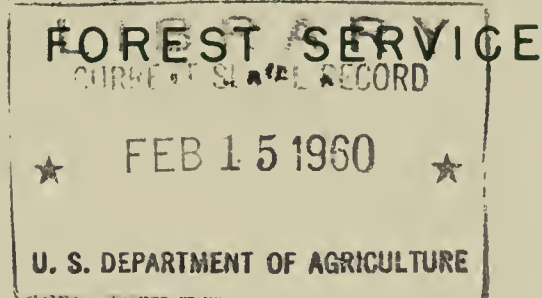
Do not assume content reflects current scientific knowledge, policies, or practices.



1.9  
F7625T  
Cof. 2

# TECHNICAL NOTES

LAKE STATES FOREST EXPERIMENT STATION  
U.S. DEPARTMENT OF AGRICULTURE ·



No. 578

The Search for Resistance to Chestnut Blight in the Lake States

Our history books are rich in accounts of the flourishing stands of American chestnuts that once covered large areas in the eastern United States. These chestnuts were an important source of quality timber for construction purposes. They also were a source of tannins and dyes and, in addition, supplied food for human consumption as well as for wildlife. These qualities made American chestnut very important to the economy of the Nation.

The situation changed rapidly after the introduction of chestnut blight into the United States in 1904. The native American chestnut was a very susceptible host and within a few years the disease had spread throughout the natural range of the tree. Virtually all of the chestnuts were killed by the fungus. This was a great loss to the Nation since no other tree has been found to replace chestnut satisfactorily.

Various workers are attempting to develop a blight-resistant chestnut that has the desirable characteristics of our native tree. One approach being used is to cross our native stock with Asiatic chestnut, which is resistant but has poorer fruit and timber qualities. Another approach is to search out any surviving trees with the thought that these may possess natural resistance. If specimens of this type are found, they will be propagated and tested under various conditions to determine if they actually are resistant. To locate specimens of this type, the U. S. Forest Service has given considerable publicity to the program, especially in periodicals that reach sportsmen and naturalists. This publicity has taken the form of a request for information on any trees found.

A surprisingly large number of reports of chestnut trees in the Lake States have been received as a result of this publicity. Most of these reports involve planted trees, since within the Lake States only a small part of southeastern Michigan is included in the natural range of American chestnut.

It has not been possible as yet to check all of the trees reported. Several of those that have been checked are mature, and some produce viable seed, as evidenced by numerous seedlings developing in the vicinity. None of the trees examined so far shows any evidence of having been infected by chestnut blight, nor are any of the live trees in the vicinity of dead and possibly infected trees. Very likely these trees are "escapes," since they are growing in isolated locations outside of the normal range of American chestnut and therefore there has been little opportunity for infection to occur. Infections will likely be encountered as more trees are examined since the disease is known to be present in the region.

Although no positive evidence of blight resistance has been found up to this time, the Station will continue to check reported trees in this area. Any person with information regarding mature American chestnuts in the Lake States is asked to contact this Station.

January 1960

GERALD W. ANDERSON, Research Forester

MAINTAINED AT ST. PAUL I, MINNESOTA, IN COOPERATION WITH THE UNIVERSITY OF MINNESOTA

